STATE OF MAINE

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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August 2, 1994

Mr. Fred Evans
Project Manager, Code 1821
Department of the Navy, Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mailstop 82
Lester, Penn. 19112-2090

RE: **Draft Work Plan Site 9 Neptune Drive Disposal Site, dated June 1994, Brunswick Naval Air Station, Brunswick, Maine**

Dear Fred:

The Department has received and reviewed the Draft Record of Decision for an Interim Remedial Action at Site 9 for NAS, Brunswick dated June 1994. The Department's comments are provided below.

General Comments

1. Please be reminded that a Maine Certified Geologist(MCG) must sign and stamp all reports and work plans that require geologic interpretation, i.e.; placement of monitoring wells, interpretation of analytical groundwater data, groundwater monitoring, plume delineation, source identification, etc.

Specific Comments

2. Page 1-4,¶ 2, last sentence: It is my understanding that the Navy did not conduct additional field investigations in 1993 to support remedial designs at Site 9. The investigations conducted in 1993 focused on delineating and characterizing the ash disposal area, which included placing monitoring wells north of Neptune Drive. Please rewrite this sentence.

3. Page 3-4, Exploration Methods: Please include a more complete description of the site history and provide the rationale for conducting the additional studies described in the Work plan. A good site history is included on pages A.2-1-2-3, and 2-5.

4. Page 3-4, Exploration Methods: The Department recommends that in addition to the proposed exploration methods, that

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the Navy collect at least two additional groundwater samples near the landfill using a direct push method near MW-914 and 915, at discrete zones above the clay layer and below the bottom of the existing wells. The purpose of this request is to characterize the concentrations throughout the saturated zone. The Department does not believe that our comments regarding the characterization of the ash disposal area have been adequately addressed (Navy response to 12/8/93 letter, Responses 10A, 10D, 10E.). The Department agrees that the ash disposal area has been fully delineated, but not that it has been characterized. There is still a lingering concern that the existing monitoring wells may not be capturing groundwater contamination leaching from the disposal area. This concern is not based on the suspected presence of DNAPL in the disposal area.

5. Page 3-5, Section 3.2.1, Soil Boring(s): Three soil borings, detailed below, must be installed; one near MW-914, one near T-23, and one for the proposed background well north of MW-916.

A. The Navy stated in their responses to the Department's December 8, 1994 comments that they will place a soil boring at MW-914. The Navy must collect continuous split spoon samples from this boring. Soil analyses for all borings must include fuel oil in soil (MDEP 4.1.2).

B. The boring near T-23 should be placed within 2 feet of T-23. The soil boring must collect continuous split spoon samples from the surface to 17 feet below land surface. Seventeen feet is the total depth of MW-916. The purpose of this boring is to characterize all of the contaminants present in the subsurface near T-23. The proposed sampling interval will not meet this objective.

C. Since there will be no test pit dug near the proposed well north of MW-916, a soil boring must be installed at this location. Continuous split spoon sampling must be collected.

6. Page 3-5, Section 3.2.1, Soil Boring: The Navy must present clear Data Quality Objectives(DQOs) for the proposed subsurface soil sampling. The DQOs must include minimum sample recoveries required to meet the characterization objectives. The text must present alternative technologies for when the DQOs cannot be achieved. Previous split spoon samples within the ash material have had poor sample recoveries (B-911, 912, and 9-13). B-911 recovered 3.5 feet of sample from between 5 and 17 feet bgs. B-912 recovered 4.1 feet from between 7 and 16 feet bgs. B-913 recovered 4.4 feet of sample from between 7 and 15 feet bgs. Soil recoveries within the landfill were insufficient (41.38%) for characterization.

7. Page 3-5, Section 3.2.1: Petroleum products originating from the NEX gas station located upgradient of Site 9 are anticipated to be contaminants of concern north of Building 216. Laboratory testing of all samples for petroleum products should follow the State of Maine methods as approved by the Health and Environmental testing Laboratory for Chapter 691. Copies of these methods can be provided upon request.

8. Page 3-6, Section 3.2.2, Monitoring Well Installation: Describe the rationale for the monitoring well locations and the objectives for placing the wells in the proposed locations.

9. Page 3-6, Section 3.2.2: Although not clearly stated in the text, it is assumed that test pits are meant to replace borings for the monitoring well location west of Building 212 and southwest of Building 216. Apparently neither test pits nor borings are proposed for the monitoring well location north of MW-916. As stated in comment # above, a boring must be installed at the location north of MW-916. As for the other two proposed locations, test pits can be substituted for continuous split spoon sampling provided that three conditions are met. First, the monitoring well must be located within 25 feet of the test pit. Second, the testpits must allow for sampling and a description of the geology to a depth equal to the maximum depth of the proposed monitoring well. Third, because of the potential geologic variability present in a trench, for elongated testpits and trenches, the field geologist must clearly document lithologic changes along the trenches. The field geologist must note the strike of lithologic units and any contaminated zones.

10. Page 3-7, ¶ 1: Include the factors to be considered in chosing appropriate screen lengths. How will water table wells influence dissolved phase concentrations of highly volatile compounds?

11. Page 3-9, Section 3.2.3, Test Pitting: Describe the rationale for placing the test pits in the proposed locations. Include the objectives for installing these test pits.

12. Page 3-9, Section 3.2.3, Test Pitting: Further describe the "dump area" and "old drain pipe" and their histories, if known. Include an explanation as to why they are included as potential source areas.

13. Page 3-9,¶ 2: The workplan should include specific DQOs for the test pit excavation and sampling program. Describe the target depths for the excavations. Describe how the

sampling will proceed if obstructions are found. Describe how sampling will proceed if the testpits do not allow for discrete zone sampling. Describe how the presence of groundwater will affect sample recoveries and test pit depths.

14. Page 3-12, ¶ 2: Groundwater Samples: Field personnel must monitor the water level during purging to make sure screens are not de-watered.

15. Page 3-12, ¶ 2: The workplan must include DQOs for groundwater sampling procedures. The workplan must include stabilization criteria for pH, temperature, DO, turbidity, specific conductance, and water table level. The workplan must describe alternative purging techniques if the stabilization of each parameter is not achieved.

16. Page 3-13, ¶ 1, third sentence: Please include the proposed sampling depth for the groundwater samples. Will the sampler target the bottom of the well screen or the water table?

17. Page 4-3, Data Quality Objectives: DQOs apply to all aspects of the sampling program, not just to the chemical aspects of the laboratory analyses.

18. Page 4-3, last paragraph, first sentence: It's picayune, but "ion" should be "on".

19. Appendices, References: The list of referenced material must include the Department's December 8, 1993 letter and the Navy's responses to that letter, dated July 19, 1994.

Please call with any questions or comments.

Sincerely,

Nancy Beardsley
Project Manager, Federal Facilities Unit
Office of the Commissioner

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